IWA Small Systems Specialist Group
Challenges and opportunities

IWA conference on small systems
Opening Session at Athens
September 2016
Millennium Development Goals

In September 2000 all the 191 Member Countries of the United Nations pledged for all the Millennium Development goals. There were 8 specific goals.
Goal Number 7:
To achieve environmental sustainability.

The aim is to reduce half the population of people without access to safe drinking water and sustainable sanitation.

This is an essential condition to reduce poverty.
The Poverty Cycle

To break the poverty cycle by addressing health, education and income is important.
Current Urban Water Management

- Phosphate rock from Africa
- Nitrogen from fertiliser production
- Energy costs for nitrification
- Food production
- <30% of total nutrients

Bio wastes:
- Sludge
- Incineration
- Landfill

Energy for C and N elimination

Accumulation:
- P > 5%
- N > 20%
- Potassium small Carbon

No bathing
Integrated Urban Water Management
Achievement of MDG:

• Between 1990 and 2012,
• 2.3 billion people gained access to improved drinking water sources.
• 1.5 billion has gained access to improved sanitation, yet one billion people still resort to open defecation at the end of the project.
Condition in 2012:

• 748 million people remained without access to an improved source of drinking water.
• Despite progress, 2.5 billion in developing countries still lack access to improved sanitation facilities at the end of the project.
Present situation:

• 663 million people being denied their right to clean water.

• 946 million people are left with no other choice but to go to the toilet out in the open.
UN - Sustainable Development Goals

• At present, the UN work on the sustainable development goals. There are 17 goals.
• The aim is to completely irradiate poverty, and hunger.
• To make sure, all the people in the world get access to clean drinking water and safe sanitation.
CONCLUSION

- Even though there are great achievements, the present demand is still big and significant.
- A deep sewer system is not the only way of wastewater disposal.
- A deep sewer system is costly to adopt for the whole world.

- New technology for localised treatment is available
  - Reuse of effluent is possible
  - Nutrient removal or use is possible
  - Avoids pollution of receiving waters

- Decentralised systems are the only way to meet the demand of the need of the people all over the world for this generation.